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(54) **Encapsulated products.**

(57) An encapsulated product, suitable for use as a foam bath composition comprises a substantially anhydrous composition encapsulated in a soft elastic gelatin and comprising (i) from 40 to 60% by weight of one or more amine salts of long chain alkyl ether sulphates; (ii) from 25 to 35% by weight of one or more liquid polyethylene glycols; and (iii) from 2.5 to 7.5% by weight of glycerin.

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)
A	US-A-4 597 885 (BERRY et al.) * Whole document * ---	1-6	A 61 K 7/50 C 11 D 17/08
A	GB-A-2 118 961 (FIRMENICH S.A.) * Whole document * ---	1-6	
A	DE-B-1 069 334 (AMERICAN CYANAMID CO.) * Whole document * ---	1-6	
A	US-A-3 705 102 (MAST) * Whole document * -----	1-6	
			TECHNICAL FIELDS SEARCHED (Int. Cl. 4)
			A 61 K C 11 D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 11-01-1990	Examiner FISCHER J.P.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document			

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16.05.90 Bulletin 90/20(71) Applicant: **R.P. Scherer Limited**
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ENCAPSULATED PRODUCTS

This invention is concerned with improvements in and relating to surfactant compositions and, more particularly, is concerned with encapsulated surfactant products suitable for use as foam bath compositions, that is compositions for addition to the water of a bath to produce a foam thereon.

Foam bath surfactant compositions are well known and widely available. Whilst they are often put up in dosage unit form, i.e. in the form of sachets, it would be useful to put them up in a dosage unit which could be simply added to the water of a bath, i.e. in a dosage unit having a water-soluble envelope.

According to the present invention there is provided a substantially anhydrous composition encapsulated in a soft elastic gelatin capsule and comprising (i) from 40 to 60% by weight, preferably about 50% by weight, of one or more amine salts of long chain alkyl ether sulphates (suitably alkyl ether sulphates containing a C_8 - C_{20} alkyl group, such as a lauryl group, and containing, on average, from 2 to 30 moles of ethylene oxide per molecule); (ii) from 25% to 35% by weight, preferably about 30% by weight, of one or more liquid polyethylene glycols such as PEG 400 or PEG 600; and from 2.5 to 7.5% by weight of glycerine.

In addition to the above components the compositions of the invention may also contain other ingredients, especially perfumes (which are suitably present in amounts of from 3 to 5% by weight) and one or more foam boosters which are suitably present in amounts of from 5 to 15% by weight.

Examples of suitable foam boosters include long chain alkyl mono-or di-alkanolamides (e.g. coconut diethanolamide) and amphoteric surfactants such as alkyl amidobetaines (e.g. cocoamidopropyl betaine), imidazolines and imidazoline betaines.

The total volume of the composition encapsulated within the soft elastic gelatin capsule is suitably from 1 to 5 ml, preferably about 4 ml. The composition, the "fill" may be encapsulated in the gelatin capsule by conventional methods e.g. by means of the well known rotary drum apparatus. The gelatin shell will normally be of conventional composition, i.e. comprising gelatin, water and a plasticizer (such as glycerol or sorbitol), suitably in relative amounts of 10 to 40%.

In order that the invention may be well understood the following example is given by way of illustration only.

Soft elastic gelatine capsules having a volume of about 4 ml were made, each capsule containing the following fill:

5 Akyposal 100 LFS (amine salts of long chain alkyl ether sulphate) 2000 mg

Rewomid DL 240240 (coconut diethanolamide) 400 mg

10 Polyethylene glycol 400 BP 1200 mg

Glycerine 200 mg

15 Perfume (E 1011) 200 mg

Two such capsules when introduced into a bath while being filled produced a stable, pleasant foam on the surface of the bath water.

Claims

1. A substantially anhydrous composition encapsulated in a soft elastic gelatin capsule and comprising (i) from 40 to 60% by weight of one or more amine salts of long chain alkyl ether sulphates; (ii) from 25 to 35% by weight of one or more liquid polyethylene glycols; and (iii) from 2.5 to 7.5% by weight of glycerin.

2. An encapsulated composition as claimed in claim 1 also containing one or more of perfumes and foam boosters.

3. An encapsulated composition as claimed in claim 2 in which the foam booster is a long chain mono-or dialkanolamide or an alkylamidobetaine.

4. An encapsulated composition as claimed in claim 2 or claim 3 containing from 5 to 15% by weight of foam booster.

5. An encapsulated composition as claimed in any one of the preceding claims having a volume of from 3 to 5 ml.

6. An encapsulated composition as claimed in claim 1 substantially as hereinbefore described with reference to the Example.